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EC69-1521 Common Soybean Insects

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COMMON SOYBEAN INSECTS

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1. BEAN LEAF BEETLE: This insect winters in the adult stage beneath litter in fields, becoming active early in the spring. The females lay eggs in the soil surrounding bean, pea, soybean and other plants. Larvae feed on roots in soil, adult beetles feed on undersides of leaves and on bean pods, at times producing economic damage. Larvae are whitish, segmented, and brown at both ends, resembling rootworms. Larvae feed 3-6 weeks, then pupate in soil. Two generations produced per year in Nebraska.

2. MEXICAN BEAN BEETLE: Most serious on field and garden beans, but will occasionally damage soybeans. Both larvae and adult beetles feed on leaves, producing a skeletonizing effect. They also damage pods and stems. Adults winter beneath trash in fields, appearing when newly planted beans emerge from soil in spring. Yellow eggs are deposited on undersides of leaves in groups of 40-50. These hatch in about a week into spiny yellow larvae. Larvae pupate beneath leaves on the plants, adult beetles emerging about 10 days later. Probably two generations in Nebraska annually.

3. JAPANESE BEETLE: Not yet present in Nebraska, although the possibility exists, particularly in the east. If you see an insect resembling Picture No. 3, be certain to sent it in to the Department of Entomology IMMEDIATELY. This insect is a serious pest of lawns in eastern U.S., the roots of which are damaged by the larvae. Larvae are C-shaped and resemble white grubs. Adults feed upon foliage and fruits of deciduous and fruit trees, and flowers, and are particularly fond of soybeans, where they concentrate on the upper leaves. One generation per year.

4. STRIPED BLISTER BEETLE: One of several species found on soybeans in Nebraska. The black blister beetle is more common. All of these beetles strip foliage from the plants, but are rarely abundant enough to cause economic damage. The larvae of many of the blister beetles are beneficial, being parasites of grasshopper egg pods in the soil. All species of blister beetles are soft-bodied, cylindrical, and have a constriction between the head and thorax. Body coloration is variable.

5. GREEN STINK BUG: Several species of stink bugs are common in Nebraska soybean fields. These insects feed by puncturing pods and developing seed with their mouthparts, resulting in sunken areas or blemishes. No serious damage has been recorded in Nebraska, but losses have been serious on soybeans in some areas of the southern United States.

6. TWO-SPOTTED SPIDER MITE: Mites are not insects. They closely resemble ticks and spiders, but are extremely small and are visible only with magnification. Spider mites feed on the undersides of leaves, producing yellowing and browning. Leaves are usually covered with a webby material, in which round, white eggs can be found. Mite damage is usually most serious during prolonged dry periods.

7. THRIPS: Thrips are very small leaf-feeding insects. Plant cells are lacerated by the insects' mouthparts and the juices are sucked up. Injury consists of dead, yellowish areas in leaves which are often conspicuously spotted with fecal material. Damage is usually not serious, except to gladioli, and occurs relatively early in the growing season.

8. GRAPE COLASPIS: Rarely a pest in Nebraska, but does occur in soybean, red clover and alfalfa fields. Larvae are subterranean, feeding on roots but seldom severely damaging the plants. Soybeans planted in old clover ground may be injured early in the growing season. Adult beetles are small, about 1/8 inch long, yellowish, and covered with small punctures. They normally eat small holes in leaves.

9. SEED MAGGOTS: May attack newly planted seed and seedlings, particularly during prolonged periods of cool, wet weather when germination and growth is slowed. Seed attacking insects are most prevalent on soils that are very high in organic matter.

10. WHITE GRUBS: Taproots of soybeans are stripped of secondary roots and rootlets by whitish, C-shaped grubs. These are the larvae of common June beetles. Life cycles are quite long, often from 2-5 years, depending on the species involved. White grubs, as a pest to crops, are most often associated with newly broken sod or soil bank land that for some time has supported a heavy growth of weeds and/or grasses.

11. GRASSHOPPERS: Damage to soybeans and other row crops is usually confined to margins bordering weedy fence rows or pasture. Grasshopper eggs are laid in situations where the soil remains undisturbed for long periods of time. After hatching in the spring, young hoppers gradually move into the more succulent crops bordering their breeding areas. Edges of leaves are eaten, imparting a ragged appearance to the plants. If populations are heavy, complete defoliation may result.

12. GREEN CLOVER WORM: Probably the most serious pest of soybeans in Nebraska. Larvae are light green with yellow striping, feed on the undersides of leaves, and crawl with a looping motion. Holes are eaten in leaves and in blossoms, sometimes stripping the entire plant. Adult moths are dark brown and fly with a rapid motion when disturbed. Larvae are often parasitized by certain flies—note the eggs attached to the larva in Figure 12.

13. CABBAGE LOOPER: Although this insect often shows up in the sweep net when sampling soybean fields, they have never been recorded in economic numbers on soybeans in Nebraska. Bear in mind, however, that any of these insects are capable of causing economic damage if conditions are favorable for their increase. This insect is most important on members of the cabbage family.

14. GARDEN WEBWORM: This insect occasionally has been important in some areas of the state in the past. Larvae feed on leaves beneath a web of silk with which they tie together parts of the plants.

15. CORN EARWORM: This insect has never been reported as damaging soybeans in Nebraska, but is a common pest on field and sweet corn, on tomatoes (then referred to as the tomato fruitworm), and on cotton in the southern U.S. (where it is called the cotton bollworm). Damage to soybeans occurs late in the season and consists of feeding injury to seed pods. Color of corn earworms is extremely variable, ranging from greenish to yellow and reddish pink or brown.

CONTROL INFORMATION: These color illustrations are designed to help identify some of the more important insect pests of soybeans. University of Nebraska Entomologists prepare control leaflets that are revised each year. For the latest control leaflets, visit your local county agent, or write to the Department of Entomology, University of Nebraska, Lincoln, Nebraska 68503.

Extension Service
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For safe and effective use of insecticides, always identify the problem correctly.

1. Bean leaf beetle

2. Mexican bean beetle and larva

3. Japanese beetle

4. Striped blister beetle

5. Green stink bug and damaged seeds

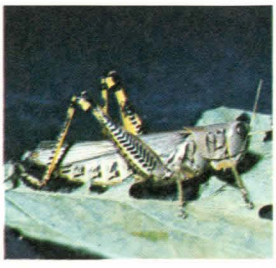
6. Two-spotted mite (not an insect)

7. Thrips (greatly enlarged)

8. Grape colaspis larva

9. Seed maggot

10. White grub



11. Grasshopper

12. Green clover worm

13. Cabbage looper

14. Garden webworm

15. Corn earworm

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